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DEPARTMENT OF FOOD AND AGRICULTURE
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BACKGROUND SHEET
Bovine Spongiform Encephalopathy Management Plan
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The California Department of Food and Agriculture (CDFA) works closely with the United States Department of Agriculture (USDA) and the Food and Drug Administration (FDA) to prevent, monitor, and respond to bovine spongiform encephalopathy (BSE). BSE emerged in the United Kingdom (UK) in 1986 and has affected nearly 200,000 cattle to date, the majority in the UK, but at least 23 other countries have had cases of BSE as of May 22, 2003. BSE has overwhelmed the livestock industry in the UK, damaged the confidence of consumers across Europe, and its effects have rippled across the world. The BSE agent has been transmitted between cattle principally through feed - meat and bone meal made from rendered ruminant products being the contaminated component. A new human disease, variant Creutzfeldt-Jakob disease (vCJD), was recognized in 1996, and most scientific information supports that it is caused by the same agent that causes BSE. Evidence suggests that the BSE agent may have been transmitted from cattle to man through the consumption of beef contaminated with the infectious agent. There is currently no vaccine, no live animal test and no treatment for BSE.

Policies to Prevent BSE from Entering the US

Beginning in July 1989, and with modifications over time, the USDA has implemented policies to prevent importing the BSE agent. Since July 1989, importation of live ruminants from countries with BSE has been banned. In November 1989, this ban was extended to include most ruminant products from countries where BSE had been diagnosed. In December 1997, this ban was again extended to include live ruminants and most ruminant products from all of Europe.

Ruminants imported from Europe before these bans have been traced and destroyed or they are being closely monitored to keep them out of the food chain. This included 496 UK cattle imported into the US between 1981 and 1989, and 38 German and two Belgium cattle imported before 1997. California received none of the cattle imported from the UK, but received one German cow, which was euthanized and incinerated in 1999. In December 2000, the importation of all rendered animal products from Europe, regardless of species, was banned.

On May 20, 2003 Canada announced the finding of a single BSE positive cow. The USDA immediately announced a ban on the importation of live ruminants and ruminant products from Canada. After an extensive epidemiological investigation, no additional cases have been found in Canada. On October 31, 2003 USDA announced a plan to begin allowing the importation of live animals from Canada.

Policies to Prevent BSE Transmission and Amplification in the US

Since August 1997, the FDA has prohibited the use of protein derived from mammalian tissues (with certain exceptions including milk, blood, porcine and equine proteins) in ruminant feed to prevent transmitting and amplifying spongiform encephalopathies into the animal food chain. The California Code of Regulations also defines prohibited mammalian tissues and incorporates by reference the federal rule prohibiting the feeding of mammalian protein to ruminant animals.

Compliance with the Ruminant Feed Ban in California

California's rendering industry processes over one million tons of waste material to produce about 275,000 tons of animal product yearly. Approximately 50% of the rendered product made in California is exported, mostly to China. The remainder is used in California in feed for swine, poultry and aquaculture, and as fertilizer. Through a partnership agreement with the FDA, personnel with the Agricultural Commodities and Regulatory Services (ACRS) Branch of CDFA are commissioned and credentialed to inspect and complete an official FDA inspection report for feed-manufacturing facilities in California.

In cooperation with the FDA, all facilities that manufacture formula feeds in California have been inspected for compliance with the ruminant feed ban, in addition to all rendering/protein blending firms. Inspections conducted at feed manufacturing facilities and ruminant feeding operations during the past 12 months have found no significant deviations from the FDA Rule on prohibited animal proteins.

Manufacturing facilities that use prohibited materials are visited approximately every eight weeks by field staff of the ACRS Branch of CDFA. Inspections and sampling of ingredients and finished feeds are conducted to ensure ongoing compliance with the ruminant feed ban. Additionally, dairy-producer facilities are inspected for compliance with the feed ban during investigations conducted under an ongoing tissue residue contract with the FDA.

All feeds containing animal protein prohibited from ruminant feed are required by federal and state law to display on the label the cautionary statement, "Do Not Feed to Cattle or Other Ruminants". Compliance with the ruminant feed ban is also included as part of a comprehensive voluntary feed quality assurance inspection program for feed-manufacturing facilities conducted under the auspices of the Safe Animal Feed and Education Program of CDFA. Training seminars for the livestock feeding industry and commercial feed manufacturers have been given in cooperation with the FDA. Information on BSE prevention has also been provided to each dairy producer in CDFA newsletters.

Surveillance for BSE Within California

Surveillance for BSE in the US began in 1990. Educating all levels of the cattle industry about the signs of BSE is necessary for good surveillance. The CDFA-Animal Health Branch has 36 veterinarians and 16 livestock inspectors dedicated to many aspects of animal health management, including 12 veterinarians who have received foreign animal disease (FAD) training from the USDA, and three veterinarians trained in the UK to recognize BSE. The CDFA-Meat and Poultry Inspection Branch has an additional 11 veterinarians, many with individual training in FADs. The USDA has 12 veterinarians stationed in California who have been trained to recognize FADs, and two veterinarians with the California Department of Fish and Game have FAD training.

The USDA and CDFA have provided educational outreach programs and information about BSE for veterinarians, laboratory diagnosticians, producers, other industry members and regulators. Updates are given regularly to California veterinarians and industry members through newsletters, publications and personal visits. The CDFA contracts with the California Animal Health and Food Safety Laboratory System (CAHFS), administered by the School of Veterinary Medicine, University of California at Davis, for livestock and poultry disease surveillance in California, which includes screening for BSE. The CAHFS has laboratory diagnosticians trained to recognize BSE, including two trained in the UK, and provides California with an excellent BSE surveillance system.

Surveillance for BSE in the US targets cattle showing signs that are consistent with BSE. Surveillance is both active (we look for cases) and passive (we take what is presented to us), and consists of examining brain tissue from:

- cattle reported by owners and veterinarians because they are showing neurological signs
- neurological cases that have been submitted to veterinary diagnostic laboratories and public health laboratories
- cattle condemned at slaughter for neurological reasons
- a random sample of non-ambulatory cattle at slaughter.

In 2003, samples from over 2,200 California cattle were tested for BSE, and 20,526 cattle were tested nationwide. This testing significantly exceeds the standards set by the Office International des Epizooties (OIE), the standard setting organization for 162 member nations.

Response Plan Within California

An emergency response plan has been developed by the USDA. This response plan focuses on protecting human health and eradicating BSE. The plan contains instructions on which person or agency will do what, when, where and how. The National Veterinary Services Laboratory (NVSL) in Ames, Iowa, is the organization responsible for activating the BSE response plan because of its role in diagnosing the disease. When NVSL has a presumptive diagnosis of BSE, samples are sent to the World Reference Laboratory for BSE in the UK for confirmation, and the emergency response plan begins. The director of NVSL notifies the deputy administrator of USDA/Animal and Plant Health Inspection Services/Veterinary Services.

If BSE is suspected in California, CDFA will be notified immediately and implementation of the response plan will be coordinated between USDA and CDFA. California's recommended activities may include actions in addition to those outlined in the USDA response plan. With a preliminary BSE diagnosis, activities in California would include:

- tracing the animal back to the herd of origin and quarantining the herd
- an epidemiological investigation of the suspect animal, including a complete history of feeding practices and all premises where the case animal resided from birth to diagnosis
- tracing and holding progeny, herd mates and birth cohorts
- tracing and holding the carcass and all food items associated with the case, including rendered products
- tracing and quarantining all suspected feeds.

If the UK laboratory confirms BSE, CDFA's recommended response will include:

- depopulating all progeny and birth cohorts of the case
- destroying all associated carcasses and food items, including rendered products, to prevent them entering the human or animal food chain
- CDFA and USDA working together to determine if a declaration of emergency is required to fund response activities, including indemnification.